REMARKS

II. Response to Office Action

A. Status of the Pending Application

Claims 1-14 and 16-20 are pending in the application. Claim 15 has been cancelled. Claims 1-2, 9, 11-12 and 16 under 35 U.S.C. § 102(b) as unpatentable over Waldman et al. (U.S. Patent No. 4,350,950). Claims 4-6, 8, 14 and 18-20 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Waldman et al.

B. Claim Objections

Claims 1-14 and 16-20 are rejected under 35 U.S.C. § 112 ¶2 as being indefinite for failing to particularly point out and distinctly claim the subject matter of the invention. Claim 1 has been amended to correct a grammatical error pointed out by the Examiner. The scope of claim 1 has not been changed with the correction.

Claim 11 has been amended to recite that "the apparatus ~~is designed for~~ comprises an evaluation circuit that: ~~determining~~ determines a reference number from periods of the second signal that arise in the time-span of a base number of periods of the first signal[[,]]; and ~~for~~ ~~determining~~ determines a first reference number for a first period length of the second signal and a second reference number for a second period length, different from the first period length of the second signal, dependent on the first reference number and the second reference number, and wherein a measure of the period length fluctuation of at least one of the first signal and of the second signal is determined." The amendment to claim 11 addresses the grammatical corrections suggested by the Examiner, and recites structure sufficient to address the Examiner's rejection under § 112 ¶2. Support for the amendment to claim 11 may be found in the Specification and Drawings as originally filed. (See, for example, Fig. 4; and Specification at ¶¶ 41-42).

C. Claim Rejections

1. Claims 1-2, 9, 11-12 and 16 are not anticipated by Waldman et al. (U.S. Patent No. 4,350,950).

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987). Claim 1 recites, for example and without limitation, a method for detecting period length fluctuations of at least one of a periodic first signal and of a periodic second signal in which a period length of the second signal is shorter than a period length of the first signal and a reference number of the periods of the second signal that arise in the time-span of a base number of periods of the first signal is obtained, the method comprising determining a first reference number for a first period length of the second signal and a second reference number for a second period length, different from the first period length, of the second signal; and calculating a measure for the period length fluctuation of at least one of the first signal and of the second signal dependent on the first and second reference number. Claim 11 recites an apparatus for detecting period length fluctuations of at least one of a periodic first signal and a periodic second signal in which a period length of the second signal is shorter than a period length of the first signal, wherein the apparatus comprises an evaluation circuit that: determines a reference number from periods of the second signal that arise in the time-span of a base number of periods of the first signal; and determines a first reference number for a first period length of the second signal and a second reference number for a second period length, different from the first period length of the second signal, dependent on the first reference number and the second reference number, and wherein a measure of the period length fluctuation of at least one of the first signal and of the second signal is determined. The Examiner asserts that Waldman et al. discloses all of the recitations of claims 1 and 11. Applicants respectfully disagree.

Waldman et al. is directed to a frequency measuring method and apparatus, where the frequency of a pulse train is measured (see, for example, Waldman et al., Abstract, Summary, Claim 1). The frequency of a pulse signal in Waldman et al. corresponds to the inverse period length of the pulse signal. In contrast, however, claim 1 recites "detecting period length fluctuations of at least one of a periodic first signal and of a periodic second signal" where period length fluctuations are different from a period length or frequency of a signal, and claim 11 recites that "a measure of the period length fluctuation of at least one of the first signal and of the second signal is determined." Waldman et al. fails to disclose or suggest all of the recitations of claims 1 and 11.

In Waldman et al., a first signal with a frequency to be measured (B in Fig. 1) and a reference frequency (C in Fig. 1) for measuring are disclosed. Both the signal to be measured and the reference signal have a fixed frequency and therefore a fixed period length is used. Waldman et al. fails to disclose a periodic signal having a first period length and second period length different from the first period length as recited for the second signal in claims 1 and 11.

Also, in Waldman et al., a number of counts or periods of the reference frequency are measured during different time periods. The beginning of the time period is determined by a "signal for the measuring to begin,: and the end is determined by the zero passage of the signal, the frequency of which is to be measured (see Waldman et al., graph A in Fig. 1). Therefore, in Waldman et al., the number of counts of the reference frequency during different time periods is measured. In contrast, in claims 1 and 11, the reference numbers are the numbers of periods of the second signal within the time-span of a base number of periods of the first signal. Therefore, because Waldman et al. fails to disclose or suggest all of the recitations of claims 1 and 11, Waldman et al. fails to anticipate claims 1 and 11 under § 102(b). Accordingly, Applicants respectfully request the Examiner to remove the rejections of claims 1 and 11 under § 102(b).

Claims 2, 9, 12 and 16 depend ultimately from claims 1 and 11. Because claims 2, 9, 12 and 16 depend ultimately from claims 1 and 12, they are patentable for at least the reasons discussed above. In addition, claim 9 recite additional features not disclosed in Waldman et al. For example, claim 9 recites, *inter alia*, that at the start of determining a reference number, the first signal and the second signal are in phase. Waldman et al. fails to disclose or suggest having the first signal and the second signal in phase at the start of determining the reference number. Therefore, because Waldman et al. fails to disclose or suggest the recitations of claim 9, Waldman et al. does not anticipate claim 9. Accordingly, Applicants respectfully request the Examiner to remove the rejection of claim 9 under § 102(b).

Claims 1-2, 9, 11-12 and 16 are not anticipated by Waldman et al. Accordingly, Applicant respectfully request the Examiner to remove the rejections of claims 1-2, 9, 11-12 and 16 under 35 U.S.C. § 102(b).

2. Claims 4-6, 8, 14 and 18-20 are not obvious over Waldman et al.

Claims 4-6, 8, 14 and 18-20 ultimately depend from claims 1 or 11. Accordingly, claims 4-6, 8, 14 and 18-20 are patentable for at least the reasons discussed above for claims 1 and 11.

In addition, the Examiner asserts that it would have been obvious to incorporate self-test circuits into the inventive system to ease manufacture of such systems. (See Office Action mailed September 21, 2006, at 4-5). However, the Examiner does not provide any reference to Waldman et al. for suggestion to modify the system disclosed in Waldman et al. to incorporate the recitations of claims 4-6, 8, 14 and 18-20. Applicants respectfully request the Examiner to provide a reference disclosing the recitations of claims 4-6, 8, 14 and 18-20. ("[A]ssertions of technical facts in the areas of esoteric technology or specific knowledge of the prior art must always be supported by citation to some reference work recognized as standard in the pertinent art." *In re Ahlert*, 424 F.2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970) (See MPEP § 2144.03A).

Accordingly, Applicants respectfully request the Examiner to remove the rejections under 35 U.S.C. § 103(a) for claims 4-6, 8, 14 and 18-20.

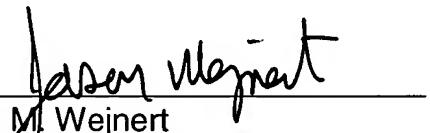
D. Allowable Subject Matter

Applicant gratefully acknowledges that the Examiner has indicated claims 3, 7, 10 and 13 would be allowable if rewritten in independent form and incorporate the limitations of the base claims and any intervening claims.

E. SUMMARY

Pending Claims 1-14 and 16-20 are patentable. Applicant respectfully requests the Examiner grant early allowance of this application. The Examiner is invited to contact the undersigned attorney for the Applicant via telephone if such communication would expedite this application.

Respectfully submitted,



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